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(71) Applicants (for all designated States except US): CORNELL RESEARCH FOUNDATION, INC. [US/US]; Cornell Business and Technology Park, 20 Thornwood Drive, Suite 105, Ithaca, NY 14850 (US). UNIVERSITY OF KENT [GB/GB]; Technology Transfer, Canterbury, Kent CT2 7NJ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BUCK, Jochen [US/US]; 4 Ferris Drive, Greenwich, CT 06870 (US). LEVIN, Lonny, R. [US/US]; 1161 York Avenue, Apt. 6D, New York, NY 10021 (US). MÜHLSCHLEGEL, Fritz, A. [DE/GB]; 4 Durnford Close, Canterbury, Kent, CT2 7RY (GB).

(74) Agents: GOLDMAN, Michael, L. et al.; Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY 14603-1051 (US).

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(54) Title: CHEMICAL INHIBITORS OF SOLUBLE ADENYLYL CYCLASE (SAC)

(57) Abstract: The present invention relates to a method of treating a disorder mediated by soluble adenylyl cyclase in a subject. The method involves administering to a subject an effective amount of a compound disclosed herein that modulates soluble adenylyl cyclase, under conditions effective to treat the disorder mediated by soluble adenylyl cyclase. The present invention also relates to a method of treating a disorder mediated by soluble adenylyl cyclase in a subject, where the disorder is selected from the group consisting of learning or memory disorders, malaria, fungal infection, spinal cord injury, Alzheimer's disease, amyotrophic lateral sclerosis, and peripheral neuropathy. The method involves modulating soluble adenylyl cyclase in the subject. Another aspect of the present invention relates to a method of modulating soluble adenylyl cyclase. The method involves contacting eukaryotic cells with a compound that modulates soluble adenylyl cyclase, under conditions effective to modulate soluble adenylyl cyclase.

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